

AMENDMENTS TO THE CLAIMS

Please amend claims as follows:

1. (Currently Amended) A diagnostic method comprising:

outputting a Noise-Vocoded Speech Sound signal that is obtained by dividing at least one portion of a sound signal into a frequency band signal and subjecting the frequency band signal to noise;

receiving a response of a patient; and

diagnosing a disease of the patient based on the response;

wherein the Noise-Vocoded Speech Sound signal is a word or a sentence in which a component of a sound source signal is subjected to noise is generated by:

extracting a frequency band signal with a predetermined frequency band from at least one portion of the sound signal by a first band filtering procedure having a plurality band filtering procedures;

extracting an amplitude envelope of each frequency signal by an envelope extracting procedure;

generating a frequency band noise signal corresponding to the predetermined frequency band from a noise source signal by a second band filtering procedure having a plurality of band filtering procedures;

multiplying the amplitude envelope of each frequency signal by the frequency band noise signal in a multiplying procedure; and

accumulating outputs obtained by the multiplying procedure in an adding procedure.

2. (Currently Amended) A diagnostic method comprising:

outputting a Noise-Vocoded Speech Sound signal that is obtained by dividing at least one portion of a sound signal into a plurality of frequency band signals and subjecting the frequency band signals to noise;

receiving a response of a patient; and

diagnosing a disease of the patient based on the response;

wherein the Noise-Vocoded Speech Sound signal in which a component of a sound source signal is subjected to noise is generated by:

extracting a frequency band signal with a predetermined frequency band from at least one portion of the sound signal by a first band filtering procedure having a plurality band filtering procedures;

extracting an amplitude envelope of each frequency signal by an envelope extracting procedure;

generating a frequency band noise signal corresponding to the predetermined frequency band from a noise source signal by a second band filtering procedure having a plurality of band filtering procedures;

multiplying the amplitude envelope of each frequency signal by the frequency band noise signal in a multiplying procedure; and

accumulating outputs obtained by the multiplying procedure in an adding procedure.

3. (Previously Presented) The diagnostic method according to claim 1, wherein a disease is estimated with reference to disease database, based on information corresponding to the output Noise Vcoded Speech Sound signal and the response.

4. (Canceled)

5. (Previously Presented) The diagnostic method according to claim 1, wherein at least one of a number of the band filtering procedures for division into frequency band signals and a frequency of a frequency band boundary can be changed, at least depending on the language.

6. (Previously Presented) The diagnostic method according to claim 1, wherein at least one of a number of the band filtering procedures for division into frequency band signals and a frequency of a frequency band boundary can be changed through automatic language recognition.

7. (Previously Presented) The diagnostic method according to claim 1, comprising a sound signal extracting procedure for extracting only a sound component from a sound signal, wherein the Noise Vcoded Speech Sound signal is obtained by converting at least one portion of the extracted sound component to a Noise Vcoded Speech Sound signal.

8. (Previously Presented) A diagnostic device for executing the method according to claim 1.

9. (Canceled)

10. (Canceled)

11. (Previously Presented) The diagnostic method according to claim 2, wherein a disease is estimated with reference to disease database, based on information corresponding to the output Noise Vcoded Speech Sound signal and the response.

12. (Currently Amended) The diagnostic method according to claim 3, wherein
the Noise-Vcoded Speech Sound signal in which a component of a sound source signal is subjected to noise is generated by:

extracting a frequency band signal with a predetermined frequency band from at least one portion of the sound signal by a first band filtering procedure having a plurality band filtering procedures;

extracting an amplitude envelope of each frequency signal by an envelope extracting procedure; generating a frequency band noise signal corresponding to the predetermined frequency band from a noise source signal by a second band filtering procedure having a plurality of band filtering procedures;

multiplying the amplitude envelope of each frequency signal by the frequency band noise signal in a multiplying procedure; and

accumulating outputs obtained by the multiplying procedure in an adding procedure.

13. (Currently Amended) The diagnostic method according to claim 11, wherein
the Noise-Vcoded Speech Sound signal in which a component of a sound source signal is subjected to noise is generated by:

extracting a frequency band signal with a predetermined frequency band from at least one portion of the sound signal by a first band filtering procedure having a plurality band filtering procedures;

extracting an amplitude envelope of each frequency signal by an envelope extracting procedure; generating a frequency band noise signal corresponding to the predetermined

frequency band from a noise source signal by a second band filtering procedure having a plurality of band filtering procedures;

 multiplying the amplitude envelope of each frequency signal by the frequency band noise signal in a multiplying procedure; and

 accumulating outputs obtained by the multiplying procedure in an adding procedure.

14. (Previously Presented) A diagnostic device for executing the method according to claim 2.

15. (Currently Amended) A diagnostic device for executing the method according to claim 1.